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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/709,046

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Ronald H. Segall

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WHITE & CASE LLP
PATENT DEPARTMENT
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NEW YORK, NY 10036

EXAMINER

FLETCHER III, WILLIAM P

ART UNIT

PAPER NUMBER

1792

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/709,046	Applicant(s) SEGALL, RONALD H.	
	Examiner William P. Fletcher III	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/8/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-24, drawn to a method of preparing an imaged composite, classified in class 427, subclass 407.1.
 - II. Claim 25, drawn to an article, classified in class 428, subclass 411.1+.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by a process in which a pre-formed, gel coat layer, is adhesively applied to the composite substrate. See MPEP 2113.

3. Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

- (a) the inventions have acquired a separate status in the art in view of their different classification;
- (b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;

- (c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);
- (d) the prior art applicable to one invention would not likely be applicable to another invention;
- (e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

4. During a telephone conversation with Andrew Fessak on January 30, 2008, a provisional election was made with traverse to prosecute the invention of group I, claims 1-24. Affirmation of this election must be made by applicant in replying to this Office action. Claim 25 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

6. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Information Disclosure Statement

7. The information disclosure statement (IDS) submitted on April 8, 2004, is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

8. Claim 15 is objected to because of the following informalities: This claim should, apparently, read "The method of according to claim 13, wherein the matrix comprises

[[of]] a material selected from the group consisting of...". Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. **Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

A. These claims recite various percentages for components of the gel coat composition. These percentages are indefinite because it is unclear with respect to what the percentages are measured. Are these weight percentages or volumetric percentages? Are they measured with respect to the total weight/volume of the composition or are they measured with respect to some other standard, such as the solids content of the composition?

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-4, 8-10, and 12-18, are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,340,504 B1.

A. Claim 1: US '504 teaches a process in which a resin coating is applied to a composite substrate material, cured, and subsequently printed via a sublimation printing process. See 2:15-3:10. Applicant has defined the claimed "gel coat composition" as "any viscous or semi-viscous resin material which cures to form a stable and durable coating that is receptive to subsequent sublimation dye imaging" (spec. ¶0011). Since the resin of US '504 functions in precisely this manner, it anticipates the claimed "gel coat composition."

B. Claims 2 and 3: US '504 teaches various UV/EB curable resins. See 2:32-55. It is the Examiner's position that such actinic radiation curing mechanisms involve photo-initiated cross-linking among resin components and, consequently, anticipate the claimed one or more cross-linkable components. See also 2:63-67.

C. Claim 4: While US '504 does not expressly teach a curing temperature, it is the Examiner's position that temperatures within the claimed range are inherent in the process of the reference. Since no curing temperature is taught, it is the Examiner's position that this fairly reads on curing at ambient temperatures, which are included within the range of 50°F-750°F. For example, at the time and place of this writing, the ambient temperature is 71°F. Further, it is the Examiner's position that UV lamps inherently generate some heat during

operation, which includes some — if not all — of the temperatures in the claimed range that are above ambient.

D. Claim 8: Since the claim states that the catalyst is optional, US '504's silence on the presence/absence of a catalyst is anticipatory.

E. Claim 9: Since the claim states that pigment may or may not be present, US '504's silence on the presence/absence of pigment is anticipatory.

F. Claim 10: US '504 teaches a layer thickness of from about 0.2 mil to about 6 mils. See 2:43-44.

G. Claim 12: US '504 teaches UV/EB (i.e., radiation) curing. See 2:15 ff.

H. Claims 13-18: US '504 teaches a resin-impregnated fiberglass reinforced composite. See 2:15 ff.

13. Claims 1-4, 8-10, 12, and 19, are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,284,327 B1.

A. Claims 1-4, 8-10, and 12: With respect to these claims, US '327 is the same as US '504 above. See 1:65-3:15.

B. Claim 19: US '327 teaches a that the composite substrate comprises a cement board. See 1:65 ff.

14. Claims 1, 7-9, 12, 13, 16, 17, 20, 21, and 23, are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,596,116 B2.

A. Claim 1: US '116, cited by Applicant in the instant specification, teaches a process in which a resin-impregnated cellulose web is formed by impregnating a cellulose web with resin material, drying to cure the resin,

followed by sublimation printing. See col. 2. Applicant has defined the claimed "gel coat composition" as "any viscous or semi-viscous resin material which cures to form a stable and durable coating that is receptive to subsequent sublimation dye imaging" (spec. ¶0011). Since the resin of US '116 functions in precisely this manner, it anticipates the claimed "gel coat composition."

B. Claim 7: US '116 teaches that the resin coating solution are typically 45-55% polyester. See 5:10-15.

C. Claim 8: Since the claim states that the catalyst is optional, US '116's silence on the presence/absence of a catalyst is anticipatory.

D. Claim 9: Since the claim states that pigment may or may not be present, US '116's silence on the presence/absence of pigment is anticipatory.

E. Claim 12: US '116 teaches drying in a heated oven (5:58-60) which anticipates the claimed thermal curing.

F. Claims 13-17: US '116 teaches a polyester resin-impregnated cellulose web

G. Claims 20, 21, and 23: US '116 teaches the further application of a UV cured polyester top coat. See 7:63 ff. It is the Examiner's position that this top coat is inherently transparent or translucent since the printed design is visible through it.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,340,504 B1.

A. Claim 7:

i. While US '504 teaches a polyester-containing resin (see above), this reference does not expressly state that the resin is present in the range of 42-52%.

ii. It is the Examiner's position that the amount of polyester resin in the composition is a result-effective variable. The amount must be sufficient to impart the desired effect, but not so large as to result in undesirable coating characteristics or to be wasteful of materials.

iii. Consequently, it would have been obvious to one skilled in the art to optimize the amount of polyester in the composition of US '504 by routine experimentation, absent evidence or unexpected results demonstrating the criticality of the claimed amount (percentage). See MPEP 2144.05.

B. Claim 11:

i. As noted above, US '504 teaches exemplary thicknesses up to 6 mils, but this reference does not expressly teach the range of about 10 mils to about 25 mils recited in this claim.

ii. It is the Examiner's position that the thickness of the coating is also a result-effective variable. The coating thickness must be thick enough to provide the desired effect (i.e., to receive the sublimation dye), while not so thick as to be undesirable for end use or to be wasteful of materials.

iii. Consequently, it would have been obvious to one skilled in the art to optimize the thickness by routine experimentation, absent evidence of unexpected results demonstrating the criticality of the claimed thickness.

See MPEP 2144.05.

17. Claims 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,284,327 B1.

A. Claim 7:

i. While US '327 teaches a polyester-containing resin (see above), this reference does not expressly state that the resin is present in the range of 42-52%.

ii. It is the Examiner's position that the amount of polyester resin in the composition is a result-effective variable. The amount must be sufficient to impart the desired effect, but not so large as to result in undesirable coating characteristics or to be wasteful of materials.

iii. Consequently, it would have been obvious to one skilled in the art to optimize the amount of polyester in the composition of US '504 by routine experimentation, absent evidence or unexpected results

demonstrating the criticality of the claimed amount (percentage). See MPEP 2144.05.

B. Claim 11:

i. As noted above, US '327 teaches exemplary thicknesses up to 6 mils, but this reference does not expressly teach the range of about 10 mils to about 25 mils recited in this claim.

ii. It is the Examiner's position that the thickness of the coating is also a result-effective variable. The coating thickness must be thick enough to provide the desired effect (i.e., to receive the sublimation dye), while not so thick as to be undesirable for end use or to be wasteful of materials.

iii. Consequently, it would have been obvious to one skilled in the art to optimize the thickness by routine experimentation, absent evidence of unexpected results demonstrating the criticality of the claimed thickness.

See MPEP 2144.05.

18. Claims 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,340,504 B1, as applied to claim 1 above, further in view of US 6,596,116 B2.

A. Claims 20 and 21:

i. The teaching of US' 504 is detailed above. This reference fails to teach the claimed top coat.

ii. As noted above, US '116 teaches an imaged composite over which a clear top coat is applied.

iii. It would have been obvious to one skilled in the art to modify the process of US '504 so as to apply a clear top coat. One skilled in the art would have been motivated by the desire and expectation of successfully protecting the underlying imaged composite.

B. Claim 22:

i. Neither US '504 nor US '116 teach the claimed thickness of the top coating.

ii. It is the Examiner's position that the thickness of the top coating is a result-effective variable. The coating must be thick enough to impart the desired effect (such as protection) but not so thick as to obscure or distort the underlying image or to be unduly wasteful of materials.

iii. Consequently, it would have been obvious to one skilled in the art to optimize the thickness by routine experimentation, absent evidence of unexpected results demonstrating the criticality of the claimed thickness. See MPEP 2144.05.

C. Claim 23:

i. As noted above, US '116 teaches a polyester top coat.

ii. Consequently, it would have been obvious to one skilled in the art to further modify the process of US '504 so as to utilize, as the top coat, a polyester top coat. One skilled in the art would have been motivated to do so by the desire and expectation of successfully producing a top coat

suitable for a sublimation dye imaged composite substrate, as US '116 teaches a polyester top coat is suitable for this purpose.

D. Claim 24:

i. Neither US '504 nor US '116 teach repeating the step of applying the top coat.

ii. It is well-known in the art to repeat the application of a coating material in order to build up a coating of a desired thickness and it would have been obvious to one skilled in the art to do so for this purpose.

19. Claims 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,284,327 B1, as applied to claim 1 above, further in view of US 6,596,116 B2.

A. Claims 20 and 21:

i. The teaching of US' 327 is detailed above. This reference fails to teach the claimed top coat.

ii. As noted above, US '116 teaches an imaged composite over which a clear top coat is applied.

iii. It would have been obvious to one skilled in the art to modify the process of US '327 so as to apply a clear top coat. One skilled in the art would have been motivated by the desire and expectation of successfully protecting the underlying imaged composite.

B. Claim 22:

i. Neither US '327 nor US '116 teach the claimed thickness of the top coating.

ii. It is the Examiner's position that the thickness of the top coating is a result-effective variable. The coating must be thick enough to impart the desired effect (such as protection) but not so thick as to obscure or distort the underlying image or to be unduly wasteful of materials.

iii. Consequently, it would have been obvious to one skilled in the art to optimize the thickness by routine experimentation, absent evidence of unexpected results demonstrating the criticality of the claimed thickness. See MPEP 2144.05.

C. Claim 23:

i. As noted above, US '116 teaches a polyester top coat.

ii. Consequently, it would have been obvious to one skilled in the art to further modify the process of US '327 so as to utilize, as the top coat, a polyester top coat. One skilled in the art would have been motivated to do so by the desire and expectation of successfully producing a top coat suitable for a sublimation dye imaged composite substrate, as US '116 teaches a polyester top coat is suitable for this purpose.

D. Claim 24:

i. Neither US '327 nor US '116 teach repeating the step of applying the top coat.

- ii. It is well-known in the art to repeat the application of a coating material in order to build up a coating of a desired thickness and it would have been obvious to one skilled in the art to do so for this purpose.

20. Claims 4, 10, 11, 22, and 24, are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,596,116 B2.

A. Claim 4: As noted above, US '116 teaches heating in an oven, but does not teach heating to the temperatures recited in this claim. The exemplary solvent is acetone and it is the Examiner's position that the temperatures in this range are sufficient for the evaporation of acetone and, consequently, would have been obvious for one skilled in the art to select.

B. Claims 10 and 11: US '116 does not teach a thickness of the gel coat. Such thickness is a result-effective variable that it would have been obvious to optimize as explained above.

C. Claim 22: US '116 does not teach a thickness of the top coat. Such thickness is a result-effective variable that it would have been obvious to optimize as explained above.

D. Claim 24: US '116 does not expressly teach repeating the step of applying the top coat. It is well known in the art to repeat the application of a coating material to build up a desired thickness and it would have been obvious to one skilled in the art to do so for this purpose.

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21. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,596,116 B2, as applied to claim 1 above, further in view of US 4,908,345

A.

A. While US '116 teaches a polyester-containing coating material, this reference does not expressly teach the claimed material including an unsaturated polyester resin, styrene monomer, and methyl methacrylate.

B. US '345 teaches a composition for the formation of a sublimable dye receiving layer from a composition comprising the elements recited in these claims. See 3:35-7:39. Such a composition exhibits improved dyeability and wear. See the abstract.

C. It would have been obvious to one skilled in the art to modify the process of US '116 so as to utilize, as the polyester composition, the composition of US '345. One skilled in the art would have been motivated to do so by the desire and expectation of providing a layer having improved dyeability and wear.

D. US '345 teaches polyester from 50-100 wt.-%, which overlaps the claimed range and is *prima facie* obvious. See MPEP 2144.05. The sum of the remaining components is thus from 0-50 wt.-%, which also overlaps the claimed ranges of the other elements, which is *prima facie* obvious. Finally, the concentrations do not support patentability unless such concentrations can be shown to be critical.

Conclusion

22. The prompt development of clear issues in the prosecution history requires that applicant's reply to this Office action be fully responsive (MPEP § 714.02). When filing

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an amendment, applicant should specifically point out the support for any amendment made to the disclosure, including new or amended claims (MPEP §§ 714.02 & 2163). A fully responsive reply to this Office action, if it includes new or amended claims, must therefore include an explicit citation (i.e., page number and line number) of that/those portion(s) of the original disclosure which applicant contends support(s) the new or amended limitation(s).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Sunday, 5:00 AM - 12:00 PM and Monday through Friday, 5:00 AM - 3:30 PM; on campus every Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William Phillip Fletcher III/

Primary Examiner

February 21, 2008